

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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**INITIAL STATEMENT OF REASONS****CALIFORNIA CODE OF REGULATIONS****TITLE 8: Chapter 4, Subchapter 7, Article 106, Section 5110 Repetitive Motion Injuries****SUMMARY**

In response to the mandate of Labor Code Section 6357 that it adopt a standard for ergonomics in the workplace, the Occupational Safety and Health Standards Board (the Board) in 1997 adopted section 5110, Repetitive Motion Injuries, in Title 8 of the California Code of Regulations. Section 5110 consists of three subsections: (a) Scope and application, (b) Program designed to minimize RMIs, and (c) Satisfaction of employer's obligation. In 1999, the California Legislature passed and the Governor signed into law Labor Code Section 6719 reaffirming the Legislature's concern over the prevalence of repetitive motion injuries in the workplace. On September 30, 2002, Governor Gray Davis vetoed AB 2845 which would have required the Occupational Safety and Health Standards Board to adopt revised standards for ergonomics in the workplace designed to minimize the instances of injury from repetitive motion by July 1, 2004. In his veto message the Governor noted that the Occupational Safety and Health Standards Board had received a petition requesting that it amend California's standard on repetitive motion injuries and he stated his belief that the Board's consideration of that petition will allow for the best evaluation of the existing regulation as well as the relative merits of amending it.

The petition referred to in the Governor's veto message was submitted to the Board by the California Labor Federation in a letter dated August 7, 2002. The petition requested that the Board revisit Section 5110 and give consideration to a comprehensive, hazard-based, preventive approach to repetitive motion injuries. The Board adopted this petition on _____.

The proposal addresses the request of the petitioners by replacing the existing provisions of section 5110 with regulatory language which applies certain elements of the regulatory scheme of the Injury and Illness Prevention Program required by Title 8 section 3203 to the prevention of worker injuries related to repetitive motion and other ergonomic hazards

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Proposed section 5110(a) would require that worker activities posing a hazard from repetitive motion or other ergonomic factors shall be addressed through the employer's Injury and Illness Prevention Program required by section 3203. The purpose of this proposed requirement is to

clarify the applicability of all of the requirements of section 3203 to the prevention of repetitive motion and ergonomic injuries in the workplace.

The factual basis of necessity for section 5110(a) is partially established by information compiled by the U.S. Bureau of Labor Statistics' Annual Survey of Occupational Injuries and Illnesses. This survey shows that while the incidence rate for injuries and illnesses with days away from work due to repetitive motion occurring at all types of workplaces in California has remained relatively stable since 1997 (in the range of 9.6 cases per 10,000 full-time employees), the nationwide rate has declined from 8.7 to 7.4. Moreover, while the overall rate for all California employers has been largely unchanged since 1997, the incidence rates for RMIs with days away from work in the manufacturing and service sectors in California have increased substantially since 1997.

In the year 2000 in California, the manufacturing and service sectors together accounted for approximately 40 percent of the workforce. In the manufacturing sector, the BLS Survey's incidence rate for injuries and illnesses with days away from work due to repetitive motion has increased steadily from 7.9 per 10,000 full-time employees in 1995, to 11.9 in 1998, to 12.7 in 2000. In the service sector in California the rate has increased from 6.3 in 1995, to 9.8 in 1998, to 10.5 in 2000. This is in contrast to the situation in the United States nationally where the rate in manufacturing has declined from 24.1 cases per 10,000 full-time workers to 16.6 in 2000. In the service sector nationwide, the incidence rate for RMIs with days away from work has declined slightly to rates of 5.2 in 1995, 4.8 in 1998, and 4.5 in 2000, well below the incidence rate of 10.5 in the service sector in California. The incidence rate for RMIs with days away from work reported in the BLS survey for the construction industry in California since 1995 has fluctuated in a range around 4.5 per 10,000 full-time workers, while nationwide it has declined to about this level from a range of approximately 7.5 in the early 1990's.

In terms of the magnitude of the problem, for calendar year 2000 in California, the BLS survey's estimate of 10,283 injuries and illnesses with days away from work due to repetitive motion constituted approximately 5 percent of all cases with days away from work, making repetitive motion the fifth most frequent cause of workplace injuries with days away from work in California.

In addition, it is likely that injuries and illnesses attributed to other leading causes of injury in the BLS survey include significant elements of causation or aggravation by repetitive motion work tasks. These include the 41,961 cases with days away from work classified as being due to "overexertion," and the 32,837 cases with days away from work due to "bodily reaction." The category of "overexertion" in the BLS survey for calendar year 2000 included 22,953 cases due to "overexertion in lifting." The category of "bodily reaction" included 11,463 cases with days away from work due to "bending, climbing, crawling, reaching, twisting." While a substantial portion of these cases would have been the result of a single traumatic event, it is likely that a significant if not substantial other portion of these cases would have had repetitive motion as a primary causal or aggravating factor. Scientific studies support the conclusion that repetitive motion can be a significant factor in injuries attributed to these types of work activities. (NIOSH 1997 and Nat Acad Sci 2001 added to docs relied upon)

The severity of repetitive motion injuries is also of significance. Whereas the median number of days away from work for injuries and illnesses due to all causes in the BLS survey for calendar year 2000 in California was 8, the median number of days away from work for cases caused by repetitive motion was 30 in each of the calendar years 1998, 1999, and 2000, the latest year for which such data are available.

In addition to incidence and severity rates for injuries and illnesses attributed to repetitive motion available from the Bureau of Labor Statistics, information is also available from the California Workers Compensation Insurance Rating Bureau (WCIRB) with regard to the sources of injury or illness for workers' compensation claims with payments in excess of \$5,000. For claims payments greater than \$5,000 first filed in 1999 (the latest year for which information is available), repetitive motion was the fourth most frequent cause of injury or illness reported by insurance carriers to the Bureau. The 7,555 repetitive motion cases in the WCIRB database first filed in 1999 accounted for 5.44 percent of total incurred losses or \$227,504,499 in total indemnity and medical payments, with an average total cost per claim of \$30,122.

Besides injuries and illnesses attributed to exposure to tasks involving repetitive motion, the WCIRB reports that in 1999 the activity of "lifting" was the number one cause of injury resulting in payments in excess of \$5,000, with medical and indemnity payments to date totaling \$600,684,088. In 1999 the second most frequently reported cause of such claims was "strain or injury not otherwise classified," accounting for 10,692 cases with \$349,246,346 in total payments to date. Finally, the fifth most frequently reported cause of claims with payments greater than \$5,000 first filed in 1999 was "cumulative not otherwise classified," accounting for 6,929 cases with \$186,631,777 in total payments to date. As noted in discussion above, there is sufficient scientific evidence to suggest that a significant portion of cases not specifically classified as being caused by repetitive motion are in fact due to or aggravated by exposure to this type of work activity.

The proposal would replace the existing 2-injury trigger of section 5110(a) with a general requirement that employers address both RMI and ergonomic hazards through the employer's Injury and Illness Prevention Program required by section 3203. Additionally, the proposal details specifically how employers are to apply provisions of the Injury and Illness Prevention Program to RMI hazards in their workplace. The factual basis of necessity for replacing the 2-injury trigger with the more general approach for coverage that is being proposed consists of the following:

1. There is a significant lack of alignment between the existing 2-injury trigger in Section 5110 and the terminology and systems for reporting injuries to employers in the workers' compensation system. Unfortunately, the workers' compensation system is the only system mandating any type of reporting that could trigger the standard, since section 5110 does not require the employer to establish any type of system to ensure that RMIs are reported. The lack of congruity between existing reporting requirements and the diagnostic criteria used by section 5110(a) undermines the effectiveness of section 5110(a) as a trigger for the hazard-control measures contained in section 5110.

2. Legal restrictions on reporting of injury diagnoses to employers, in the interest of medical confidentiality, may result in cases of injury that would otherwise trigger the provisions of Section 5110 going unreported as such.
3. Even if medical confidentiality were not a barrier to reporting of repetitive motion injuries, there is no consistent system for physicians to report injuries to employers with sufficient detail to assure that it is clear to the employer that the physician attributes the injury to a workplace task involving repetitive motion.
4. The 2-injury trigger is inconsistent with Labor Code Section 6401.7, the statutory provision underlying the requirement of Title 8 section 3203 for employers to develop, implement, and maintain an Injury and Illness Prevention Program. Both the statute and the regulation implementing it require employers to have an effective program that identifies, evaluates, and controls the specific hazards employees encounter in their work. There is no provision in section 6401.7 excluding any particular type of occupational hazard and there is no provision for the reporting of two injuries to an employer before the requirement to address hazards through the safety program takes effect. If section 5110 is to be viewed as the exclusive source of requirements applicable to controlling RMI hazards then there is an inconsistency between its injury-triggered provisions and the hazard-triggered provisions of the Injury and Illness Prevention Program requirement.
5. There is substantial confusion among the regulated public as to the interaction of section 5110, with its two-injury trigger, and section 3203, which requires all employers to have an Injury and Illness Prevention Program (IIPP). At the Standards Board meeting of September 19, 2002, two representatives from industry commented that they believed section 3203 filled any gaps left by the jurisdictional provisions of section 5110. One possible interpretation of the relationship between the two standards is that where the jurisdictional criteria of 5110 are not met, section 3203 applies with respect to an employer's obligation to address RMI hazards. Another interpretation, which has been followed by the Division since section 5110 took effect, is that section 5110 is the exclusive authority for addressing RMI hazards, and where its jurisdictional criteria are not met, there is no employer obligation to address RMI hazards at all. Still another question regarding the applicability of 3203 arises where an ergonomic hazard exists but involves a risk of injury other than an RMI.

The wording of section 3203 closely parallels that of Labor Code section 6401.7, which is the statutory provision requiring employers to establish and implement injury prevention programs. Both the statute and the standard require employers to have an effective program that identifies, evaluates, and controls the specific hazards employees encounter in their work. There is no provision excluding any particular type of occupational hazard and there is no requirement for the reporting of two injuries to an employer before the requirement to address hazards takes effect. If section 5110 is to be viewed as the exclusive source of requirements applicable to controlling RMI hazards then there is an irreconcilable inconsistency between its injury-triggered provisions and the hazard-triggered provisions of the Injury and Illness Prevention Program requirement.

Substantial inconsistency appears to exist between 5110 on the one hand and Labor Code sections 6400, 6402, 6403, and 6404 on the other. These are all employer-duty statutes that articulate different approaches to describing the employer's obligation to provide a safe and healthy work environment, but the consistent theme throughout all can be summed up as a mandate to do what is reasonably necessary to protect employees. Most if not all safety experts will agree that protection means prevention, and awaiting injury before engaging in prevention is not likely to be seen as reasonable in most situations.

Therefore, there is a necessity to make section 5110 and section 3203 consistent with each other and to clarify how they relate when it comes to addressing ergonomic hazards. The occurrence of a work-related injury or illness at a workplace does not and should not by itself establish a violation of any Title 8 regulation. Similarly, however, the absence of a work-related injury should not, by itself, relieve the employer of all regulatory responsibility for prevention of that type of injury.

In addition to the above, Labor Code section 6719 serves as official expression of the Legislatures concern over the prevalence of repetitive motion injuries in the workplace and the Standards Board's continuing duty to carry out Labor Code section 6357.

Proposed Section 5110(b) would require that when an injury reasonably appears to be related to workplace exposure to a task involving repetitive motion, the employer shall include a worksite evaluation in the injury investigation undertaken pursuant to section 3203(a)(5) of Title 8 as part of the requirement of the Injury and Illness Prevention Program. The worksite evaluation would be required to include at least:

- (A) An interview of the employee and observation of the employee's work stations or work locations.
- (B) Observation of the employee's work and work processes.
- (C) A record of the findings of the evaluation.

The purpose of this proposed requirement is to encourage adequate assessment of employee injuries related to workplace exposures to repetitive motion, so as to facilitate the implementation of cost-effective measures for prevention of recurrence of injury in the same employee or among different employees conducting similar tasks.

Proposed section 5110(c) would retain the language of the second sentence of existing section 5110(b)(2), which requires that in controlling exposures to repetitive tasks in the workplace the employer consider engineering controls such as work station design, adjustable fixtures or tool redesign, and administrative controls such as job rotation, work pacing, or work breaks. Proposed 5110(c) would modify the requirement of existing 5110(b)(2) by requiring consideration of control measures for those RMI hazards identified by employers pursuant to their section 3203(a)(6) procedures for correcting unsafe or unhealthy working conditions.

The factual basis is demonstrated by the discussion given in connection with the proposed modifications to section 5110(a). The proposed modifications are necessary to harmonize the existing hazard control language of section 5110 with the related provisions of section 3203.

The proposed language would eliminate the language of existing section 5110(c) regarding the burden of proof.

This language is made unnecessary by the tying of the section 5110 to section 3203. Section 3203, in requiring employer injury and illness programs to be effective, gives sufficient guidance on burden of proof, and that guidance should be uniform for all obligations flowing from section 3203.

Proposed section 5110(d) would require that employees exposed to RMI hazards as determined by the employer pursuant to sections 3203(a)(3), (a)(4), (a)(5), or (a)(7) be provided with training that includes an explanation of:

- (1) The manner in which the employer's Injury and Illness Prevention Program addresses RMI hazards.
- (2) The RMI hazards that the employer has determined are to be addressed by the Injury and Illness Prevention Program.
- (3) Symptoms and consequences of injuries caused by repetitive motion.
- (4) The importance of reporting to their employer symptoms and injuries.
- (5) Methods used by the employer to minimize injuries.

This subsection is necessary for the reasons stated above in connection with proposed section 5110(a). The proposed language of section 5110(d) retains the training specifications in existing section 5110(b)(3), and ties them to the parallel training requirement in section 3203. because employee training is recognized by the health and safety profession as being critical to successfully minimizing injuries occurring in the workplace, including those resulting from repetitive motion. The specific language of this subsection is necessary to provide employers with adequate notice as to what subjects are to be addressed in training for RMI hazards identified pursuant to the employer's Injury and Illness Prevention Program.

DOCUMENTS RELIED UPON

1. Occupational Injuries and Illnesses in the United States. Profile Data 1992 – 2000. U.S. Department of Labor, Bureau of Labor Statistics (CD-ROM).
2. Workers Compensation Insurance Rating Board of California. 1999 Policy Year Data.
3. Musculoskeletal Disorders and the Workplace: Low Back and Upper Extremities. Panel on Musculoskeletal Disorders and the Workplace. Commission on Behavioral and Social Sciences and Education. National Research Council and Institute of Medicine. National

Academy of Science. (2001) (available to view on the Internet free of charge at books.nap.edu/books/0309072840/html/R1.html#pagetop)

4. Musculoskeletal Disorders and Workplace Factors - A Critical Review of Epidemiologic Evidence for Work-Related Musculoskeletal Disorders of the Neck, Upper Extremity, and Low Back. U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 97-141. July 1997.(available to view on the Internet free of charge at www.cdc.gov/niosh/ergosci1.html).
5. Initial Statement of Reasons in rulemaking package of the Occupational Safety and Health Standards Board establishing Title 8 Section 5110, Repetitive Motion Injuries, 1997.
6. Initial Statement of Reasons in rulemaking package of the Occupational Safety and Health Standards Board amending Title 8 Section 3203, Injury and Illness Prevention Program, 1990.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

The Workers Compensation Insurance Rating Bureau of California (WCIRB) reports that for claims first filed in 1999 for injury or illness attributed to repetitive motion and paying more than \$5,000, the average cost per claim for both medical and indemnity payments was \$30,122 for all workplaces.

In calendar year 2000, the BLS Annual Survey of Occupational Injuries and Illnesses estimated that there were 456 cases of injury and illness with days away from work due to repetitive motion among employees of California state agencies. Of these 456 cases, 240 involved more than 10 days away from work, with 147 of these involving more than 20 days away from work. It would appear reasonable that most cases involving more than 10 days away from work could result in workers' compensation payments greater than \$5,000. Based on this assumption, and the WCIRB's average reported cost per repetitive motion claim paid of \$30,122, one estimate of claims payments for State employees would be approximately \$7.3 million (240 cases multiplied

by \$30,122 per case). Thus a rough estimate of the cost in workers' compensation payments to employees of state agencies for injuries and illness with days away from work due to repetitive motion could be in the range of \$5 to \$10 million.

Many State agencies already have existing programs to prevent ergonomic injuries and all State agencies as California employers are required to have Injury and Illness Prevention Programs in place. It is anticipated that the costs to State agencies of satisfying the requirement of the proposed regulation to address RMIs and ergonomic hazards as part of their Injury and Illness Prevention Program will be offset by savings resulting from reductions in the frequency and severity of injuries associated with these hazards.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The proposal should not require private persons or entities who are employers to incur additional costs in complying with this proposal.

The proposal relies on particular elements of the requirements of Title 8 Section 3203 for all employers to establish, implement, and maintain an Injury and Illness Prevention Program to address hazards to worker health and safety. Clarifying for employers how they must address prevention of injuries due to repetitive motion through their existing IIP program does not impose significant costs on private persons or businesses. The one requirement that would be imposed by the proposal that goes beyond the requirements stated in Section 3203 is at proposed subsection 5110(b)(3) for making a record of findings of investigations of RMI cases pursuant to existing section 3203(a)(5). However it is anticipated that savings resulting from the occurrence of fewer repetitive motion injuries will offset whatever additional costs may be incurred in complying with the requirements of the proposal.

It should be noted that the Initial Statement of Reasons in the rulemaking package for Section 5110 when it was first adopted by the Standards Board in 1997 contained the conclusion that:

“This proposal should not result in a significant adverse economic impact on businesses, including the ability of California businesses to compete with businesses in other states.”

And additionally that:

“The proposal should not require private persons or entities who are employers to incur additional costs in complying with the proposal.”

Similarly in the rulemaking package submitted in 1990 for amendments establishing Section 3203 in its current form the Initial Statement of Reasons adopted by the Standards Board stated that:

“It is anticipated that this proposal will not have a significant adverse economic impact on small businesses.”

And additionally that:

“The proposal will not require private persons or entities to incur additional costs in complying with the proposal.”

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

The estimated costs would be similar to those identified above for state agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed regulation does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, this regulation does not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed regulation does not require local agencies to carry out the governmental function of providing services to the public. Rather, the regulations require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed regulation does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed regulation does not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses.

ASSESSMENT

The adoption of the proposed amendments to these regulations will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.